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HOLOGIC, INC., CYTYC CORP. and HOLOGIC L.P.

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

HOLOGIC, INC., CYTYC CORPORATION,
and HOLOGIC L.P.,

Plaintiffs,

vs.

SENORX, INC.,

Defendant.

AND RELATED COUNTERCLAIMS.

Case No. C08 00133 RMW (RS)

**DECLARATION OF MARTIN E. KEISCH,
M.D. IN SUPPORT OF PLAINTIFFS'
MOTION FOR PRELIMINARY
INJUNCTION**

Date: April 21, 2008
Time: 2:00 p.m.
Room: Courtroom 6, 4th Floor
Judge: Hon. Ronald M. Whyte

1 I, Martin E. Keisch, M.D., declare and state as follows:

2 1. I make this declaration based on my personal knowledge, training and experience, and
3 if I were to be called to testify, I could and would testify competently about the subject matter set forth
4 below.

5 2. I am a board-certified radiation oncologist. I am currently president of Cancer
6 HealthCare Associates (CHCA) and medical director of radiation oncology at Cedars Medical Center
7 in Miami, Florida.

8 3. I have extensive expertise in breast, prostate and GYN brachytherapy. I currently serve
9 as an investigator in the Mammosite Multicenter DCIS trial and the Mammosite Registry trial for the
10 American Society of Breast Surgeons. I am a consultant to Cytoc Surgical Products.

11 4. I graduated with honors from Tufts University School of Medicine in Boston,
12 Massachusetts, in 1987. I then completed a residency in radiation oncology in 1992 at the
13 Mallinckrodt Institute of Radiology at Washington University Medical Center in St. Louis, Missouri,
14 where I served as chief resident in radiation oncology. During my residency, I developed a computer-
15 based training system for radiation oncology. I was also an American Cancer Society research fellow.

16 5. Prior to joining Cedars Medical Center, I worked as a radiation oncologist at another
17 cancer center in Miami Beach, Florida. Before moving to Florida, I served as medical director for
18 radiation oncology for Sharp Healthcare in San Diego.

19 6. My professional affiliations include serving as a member of the Cedars Medical Center
20 Cancer Committee, as the cancer liaison physician to the American College of Surgeons, and as a
21 member of the finance committee of the American Brachytherapy Society. I am also a member of The
22 American Society of Therapeutic Radiation Oncology, American College of Radiology, ESTRO,
23 Fletcher Society, American Radium Society, American College of Radiation Oncology, Association of
24 Freestanding Radiation Oncology Centers, and the American Brachytherapy Society.

25 7. A copy of my curriculum vitae, which sets forth my background and experience in more
26 detail, is attached as Exhibit A.

27 8. Over the past several years, accelerated partial breast irradiation, or APBI, as it is
28 called, has developed as a viable option to traditional breast conservation therapy, which involves

1 irradiating the whole breast with conventional fractionated doses over a longer period of time. An
2 increasing acceptance of APBI by the worldwide medical community, and ultimately proof of its
3 equivalence to whole breast irradiation, critically depend, however, on careful selection of candidates
4 for APBI from the patient pool and careful treatment delivery of those who are selected. Only through
5 carefully selected patient candidates and careful treatment delivery can the medical profession
6 accumulate scientifically convincing data regarding the benefits and efficacy of APBI.

7 9. Accordingly, it is vital that companies who introduce treatment delivery systems for
8 APBI not market them for uses that are contraindications, i.e., situations in which the device should not
9 be used because the risk of use clearly outweighs any possible benefit, or for uses that are inconsistent
10 with warnings, i.e., limitations placed on use because of serious adverse reactions and potential safety
11 hazards associated with the device. For example, if a newly introduced treatment delivery system is
12 predicated on its equivalence and similarity to another treatment delivery system that has already been
13 on the market, then it is difficult to see how the indications and warnings for the newly introduced
14 treatment delivery system can be any different than those for the existing treatment delivery system,
15 especially if there is no data to support expanded claims or indications.

16 10. An example is the warning that appears on the labeling for the Mammosite and Contura
17 treatment delivery systems: "Do not use if the cavity is too small or if a skin surface to balloon surface
18 distance of less than 5 mm will result." This warning is there for an important reason. The medical
19 concern is not only about skin necrosis resulting from an unacceptably high dose at the skin, but also
20 from the pressure effect from the brachytherapy balloon where the overlying tissue is thin. In other
21 words, skin dose and pressure effect can potentially equally contribute to skin necrosis.

22 11. Accordingly, in my professional opinion, it is troubling that training presentations for
23 the Contura treatment delivery system make the claim that Contura delivers the same skin dose at a
24 two millimeter distance from the balloon surface to the skin surface that Mammosite delivers at an
25 eight millimeter distance. This erroneously implies without any supporting data that Contura is safer
26 than Mammosite for skin surface to balloon surface distances of less than five millimeters because the
27 medical concern is not only about skin dose but also pressure effect.

1 12. The broad claim that the Contura treatment delivery system can treat patients who are
2 candidates for APBI but are currently excluded because of the location of the lesion relative to breast
3 size is also troubling, in my professional opinion. It goes without saying that the medical community
4 as a whole applauds the introduction of treatment delivery systems that hold the promise of greater
5 treatment flexibility or versatility. But candidate selection and evaluation is and should be performed
6 on an individual-by-individual basis. Generalizations made by a company regarding whether a
7 particular treatment delivery system can be used with a different or broader patient pool are overstated
8 and unhelpful. What the medical community needs is information that will allow each professional to
9 evaluate the appropriateness of a particular treatment delivery system for each patient, and each patient
10 to make an informed decision about whether to choose APBI.

11 13. When a Mammosite balloon applicator is used for breast brachytherapy, the brachytherapy
12 balloon is expanded so that its outer surface presses against and reshapes the resection cavity. This is
13 what creates the pressure effect described above. If a balloon applicator were used to deliver localized
14 radiation to brain tissue, however, one would not want to expand a brachytherapy balloon in this
15 manner because the pressure effect could injure the sensitive brain tissue. In the breast, When the skin
16 tissue over the balloon is thinner than 5 millimeters the blood supply may be inadequate to tolerate the
17 pressure. Currently little information is available in this setting.

18
19 I declare that the foregoing is true and correct to the best of my knowledge under penalty of
20 perjury.

21 Executed on April ___, 2008 in Miami, Florida.

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23 _____
24 Martin E. Keisch, M.D.
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Filer's Attestation

I, Katharine Altemus, am the ECF User whose identification and password are being used to file this Declaration of Martin E. Keisch, M.D. in Support of Plaintiffs' Motion for Preliminary Injunction. Pursuant to General Order No. 45, § X(B), I attest under penalty of perjury that concurrence in the filing of the document has been obtained from Martin E. Keisch, M.D..

Dated: April 7, 2008

By: /s/ Katharine Altemus
Katharine Altemus